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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,198	12/11/2006	Alexander I. Khibnik	67008-139	9499
74187 7590 01/06/2009 Carlson, Gasky, & Olds, P.C./Sikorsky 400 West Maple Road, Suite 350 Birmingham, MI 48009				
EXAMINER CHARIQUL MOHAMED				
ART UNIT 2857		PAPER NUMBER		
MAIL DATE 01/06/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,198

Applicant(s)

KHIBNIK ET AL.

Examiner

MOHAMED CHARIOUI

Art Unit

2857

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-31 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date 10/14/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. Applicant cancelled claim 3.

DETAILED ACTION

Claim Rejections - 35 USC § 112

2. **Claims 1, 2 and 4-8** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Allowable Subject Matter

3. **Claims 9-31** are allowed.

Claim 9 is allowed because the closest prior art, Bohannon et al. (U.S. Patent No. 4,956,999) fails to anticipate or render obvious a signal estimation method, the method including the steps of obtaining at least one estimated variable feature from said at least one input state parameter via a feature estimation model, wherein the feature estimation model maps relationships between the at least one state parameter and at least one variable feature; and constructing an estimated signal from said at least one estimated variable feature and at least one fixed feature, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 19 is allowed because the closest prior art, Bohannon et al. (U.S. Patent No. 4,956,999) fails to anticipate or render obvious a method of generating a signal estimation model, the method including the steps of obtaining at least one state

parameter during the same operation conducted for the step of obtaining of the actual signal; extracting at least one fixed feature and at least one variable feature from the actual signal; constructing a variable feature estimation model that maps said at least one variable feature by said at least one state parameter in the feature estimation model; and constructing a synthesis model that synthesizes an estimated signal from the at least one variable feature obtained using the feature estimation model and at least one fixed feature, in combination with the rest of the claim limitations as claimed and defined by the Applicant.

Claim 28 is allowed because the closest prior art, Bohannon et al. (U.S. Patent No. 4,956,999) fails to anticipate or render obvious a load estimation system for estimating at least one of a load on apart and a response to a load, comprising a memory that stores a model coefficients library and a mode shape library, wherein the model coefficients library is part of an estimation model that maps a relationship between at least one input state parameter and at least one mode amplitude; and a processor that receives said at least one input state parameter, obtains said at least one mode amplitude corresponding to said at least one input state parameter, and constructs an estimated load signal from said at least one mode amplitude and at least one mode shape taken from the mode shape library.

4. **Claims 1-8** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph set forth in this Office action.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 2 and 4-31, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Charioui whose telephone number is (571) 272-2213. The examiner can normally be reached Monday through Friday, from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohamed Charioui

1/5/08

/Edward Raymond/

Primary Examiner, Art Unit 2857